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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,887	01/09/2006	Jan-Jette Blange	TS6426 US	7029
23632	7590	01/31/2008		
SHELL OIL COMPANY P O BOX 2463 HOUSTON, TX 772522463			EXAMINER FULLER, ROBERT EDWARD	
			ART UNIT 3676	PAPER NUMBER
			MAIL DATE 01/31/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/563,887

## Applicant(s)

BLANGE, JAN-JETTE

## Examiner

ROBERT E. FULLER

## Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/88)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date 01/09/2006, 07/27/2006

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because of the reasons enumerated in the attached PTO-948 form (Draftperson's Review). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the device must be shown to be capable of excavating an object claims 13-15 must be canceled. The device shown in the drawings, specifically in figures 1, 6, and 9, does not appear

capable of creating a jet of fluid that impinges on an object. For example, the nozzle is not shown, nor is the wellbore wall (the "object"). Also, the "drive means" should be shown. Finally, the claimed "ridge" is difficult to distinguish in figure 9. In general, figure 9 is quite difficult to understand and should be amended to be more clear. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

#### ***Claim Objections***

4. Claim 15 is objected to because of the following informalities: Examiner is unclear as to what the "bypass conduit" actually bypasses. It seems that the "bypass conduit" is actually what *supplies* the tool with fluid. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Blange (US 2002/0079998).

With regard to claim 1, Blange discloses a device for transporting particles containing a magnetic material in a selected direction, the device comprising a support member (21) having a support surface for supporting the particles, the support surface extending in the selected direction; a separator magnet (28) arranged to generate a magnetic field for retaining the particles on the support surface, and means (36) for advancing the magnetic field in a direction having a component in the direction of the magnetic field gradient on the support surface.

Although Blange is silent about "high- and low-field bands" and "gradient zones," Blange inherently discloses all of these limitations, as Blange discloses the exact same arrangement of the magnets as disclosed in applicant's specification (see paragraphs 0024, 0026, and 0031).

With regard to claim 2, Blange teaches that the separator magnet is a composite magnet comprising a plurality of magnetic building blocks (28a, 28b, 28c) stacked together in a selected stacking direction.

With regard to claims 3-6, 8, 10, and 11, as stated above, although Blange is silent about "high- and low-field bands" and "gradient zones," Blange inherently discloses all of the limitations of these claims, as Blange discloses the exact same arrangement of the magnets as disclosed in applicant's specification (see paragraphs 0024, 0026, and 0031).

With regard to claim 7, the means (36) is an electric motor.

With regard to claim 9, the low-field band corresponds to a recess (32) provided in the outer surface of the separator magnet (see paragraph 0031, lines 1-3).

With regard to claim 12, the support surface is arranged in a tapered fashion around the separator magnet (see 34 in Figure 4).

With regard to claim 13, Blange discloses all of the limitations of this claim which are also recited in claim 1 as discussed above, and Blange further teaches a tool (7) for excavating an object (8), the tool comprising a jetting system arranged to impinge the object to be excavated with a jetted stream of a fluid mixed with abrasive particles comprising a magnetic material, the jetting system being provided with at least an abrasive particle inlet (16) allowing entrance of abrasive particles into the jetting system, the tool further comprising a recirculation system (21, 28, 36) arranged to recirculate at least some of the abrasive particles, from a return stream of the fluid mixed with the abrasive particles downstream impingement of the jetted stream with the object back to the jetting system.

With regard to claim 14, Blange discloses a ridge (24a, 24b) on the support surface.

With regard to claim 15, Blange teaches that the jetting system is fluidly connected to a bypass conduit (11) arranged inside the ridge for supplying the jetting system with the fluid.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT E. FULLER whose telephone number is (571)272-0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer H Gay/  
Supervisory Patent Examiner, Art  
Unit 3676

01/29/2008  
REF